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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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04/20/2001

Hank Hundemer

WKRC/02

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11/01/2004

WILEY, REIN & FIELDING, LLP
ATTN: PATENT ADMINISTRATION
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WASHINGTON, DC 20006

EXAMINER

DUONG, FRANK

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/838,781

Applicant(s)

HUNDEMER, HANK

Examiner

Frank Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-56 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 50-54 is/are allowed.
- 6) ☒ Claim(s) 21-26, 35-41, 55 and 56 is/are rejected.
- 7) ☒ Claim(s) 28-34 and 42-49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/25/02, 09/05/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This Office Action is a response to the Preliminary Amendment dated 04/19/02.

Claims 21-56 are pending in the application.

Information Disclosure Statement

2. The information disclosure statements filed 02/25/02 and 09/05/02 comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. They have been considered and placed in the application file.

Claim Objections

3. Claim 50 is objected to because of the following informalities: The term "may be", recited in line 15, should change to --are-- to definitely claim the recited limitation.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

((e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 21-26, 36-41 and 55-56 are rejected under 35 U.S.C. 102(e) as being anticipated by Rajakarunanayake et al. (USP 6,810,4133) (hereinafter "Rajakarunanayake").

Regarding **claim 21**, in accordance with Kostreski reference entirety, Kostreski discloses a host computer system for balancing a transmission load (*col. 8, lines 26-29 or col. 9, lines 17-21*) among a plurality of broadcast origination points (Fig. 3; 228) in a digital broadcast transmission system (Fig. 3) for wireless delivery of digital content (Fig. 3; 202) to a plurality of client computer systems (Fig. 3; 240), the system comprising:

a load balancing module (220) for selecting one of the plurality of broadcast origination points (228) for broadcasting content (202) to at least one of the plurality of client computer systems (240) (*col. 7, lines 14-61. Note: the selecting one of the plurality of broadcast origination points can be merely read as the selection between one of elements 228 or between 230 and 228*); and

a host server (210) programmed to received one or more requests for content from at least one of the plurality of client computer systems (240), to retrieve the request content, and to transmit the request content to at least the selected one of the plurality of broadcast origination points (*col. 7, lines 10-14*).

Regarding **claim 22**, in addition to features recited in base claim 21 (see rationales discussed above), Rajakarunanayake further discloses at least one router (226) located between the host server (210) and the plurality of broadcast origination points (228) for receiving requested content from the host server and routing the requested content to at least the selected one of the plurality of broadcast origination

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points for broadcast to at least one of the plurality of client computer systems (*col. 7, lines 34-51*).

Regarding **claim 23**, in addition to features recited in base claim 21 (see rationales discussed above), Rajakarunanayake further discloses a communication link between the host server (210) and the Internet (204) for retrieving content requested by at least one of the plurality of client computer systems (240) (*see Figure 3 for the communication link between elements 210 and 204*).

Regarding **claim 24**, in accordance with Rajakarunanayake reference entirety, Rajakarunanayake discloses a method for balancing a transmission load (*col. 8, lines 26-29 or col. 9, lines 17-21*) among a plurality of broadcast origination points in a digital broadcast transmission system (Fig. 3) for wireless delivery of digital content (202) to a plurality of client computer systems (240), comprising:

providing a host computer system that is in communication with the digital broadcast transmission system (Fig. 3; 210);

establishing a communication connection between the host computer system and one of the client computer systems (*col. 6, lines 36-45*);

receiving a request for content from said one of the plurality of client computer systems (*col. 6, lines 36-45*);

obtaining the requested content (*col. 6, lines 50 or col. 7, lines*);

selecting one of the plurality of broadcast origination points (*col. 7, lines 14-61*).

Note: the selecting one of the plurality of broadcast origination points can be merely read as the selection between one of elements 228 or between 230 and 228); and

causing a digital broadcast to be transmitted by the selected one of the plurality of broadcast origination points to said one of the plurality of client computer systems, said digital broadcast including at least the requested content (col. 7, lines 34-61).

Regarding **claim 25**, in addition to features recited in base claim 24 (see rationales discussed above), Rajakarunanayake further discloses wherein: said host computer system (210) includes a host server and a router (Fig. 1; elements 56 and 60 or Fig. 3; element 212).

Regarding **claim 26**, in addition to features recited in base claim 24 (see rationales discussed above), Rajakarunanayake further discloses wherein: said digital broadcast further includes at least one special action instruction (col. 9, line 31).

Regarding **claim 36**, in addition to features recited in base claim 24 (see rationales discussed above), Rajakarunanayake further discloses wherein: said communication connection between the host computer system and the client computer system comprises an IP virtual private networking connection (*col. 6, lines 36-45; tunneling code*).

Regarding **claim 37**, in addition to features recited in base claim 24 (see rationales discussed above), Rajakarunanayake further discloses wherein: at least one of a plurality of broadcast origination points comprises a selected one of a terrestrial digital television transmission station and a digital broadcast satellite transponder (see *Fig. 3; elements 228*).

Regarding **claim 38**, in addition to features recited in base claim 24 (see rationales discussed above), Rajakarunanayake further discloses wherein: at least one

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of a plurality of broadcast origination points comprises a selected one of a plurality of channels on a single transmission station and a plurality of separate transmission stations (*see Fig. 3; elements 228*).

Regarding **claim 39**, in addition to features recited in base claim 24 (see rationales discussed above), Rajakarunanayake further discloses wherein: said host computer system is connected to said selected one of the plurality of broadcast origination points via a selected one of a wireless microwave transmission link and a wired transmission link (*see Fig. 3; connections between elements 218 to 220 via 218 or 202 and 204*).

Regarding **claim 40**, in accordance with Rajakarunanayake reference entirety, Rajakarunanayake discloses a method for selecting a broadcast origination point in a digital broadcast transmission system for wireless delivery of digital content to a client computer system, said digital broadcast system comprising a host computer and a plurality of broadcast origination points (*see Fig 3 for the environment claimed in the preamble*), the method comprising:

establishing a communication connection between said client computer system and said host computer system (*col. 6, lines 26-35*);

transmitting a request for content to said host computer system (*col. 6, lines 36-45*);

providing a client computer system with a digital broadcast receiver (*Fig. 3; element 242*);

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receiving a digital broadcast transmitted by a selected one of the plurality of broadcast origination points at the digital broadcast receiver, said digital broadcast including at least the requested content (*col. 7, lines 34-61*); and

receiving a beacon signal from one of the plurality of broadcast origination points at the digital broadcast receiver, said beacon signal providing transmission characteristics of said plurality of broadcast origination points (*col. 6, line 20 and thereafter, Rajakarunanayake discloses the instant invention is implemented using DirectPC equipment supplied by Hughes Satellite System. Thus, the claimed limitation is inherent for DirectPC system, there is a beacon signal for tracking as well as doing the maintenance to the satellite receiver at a user premise*).

Regarding **claim 41**, in addition to features recited in base claim 40 (see rationales discussed above), Rajakarunanayake further discloses said requested content is received from the Internet by the host computer system and forwarded to the selected one of said plurality of broadcast origination points (*col. 7, lines 34-51*).

Regarding **claim 55**, in accordance with Rajakarunanayake reference entirety, Rajakarunanayake teaches a method for providing Internet access to a client computer system (Fig. 3), comprising:

providing a digital broadcast transmission system for wireless delivery of digital content to said client computer system, said digital broadcast transmission system including at least first and second broadcast origination points (Fig. 3; elements 228 and 230);

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establishing a communication connection between said host computer system and said client computer system (*col. 6, lines 26-35*);

delivering a request for content from said client computer system to said host computer system (*col. 6, lines 40-45*);

obtaining delivery of requested content via the Internet to said host computer system (*col. 6, lines 46-50*);

transferring said requested content to a selected one of said first and second broadcast origination points (*col. 7, lines 34-51*); and

receiving a digital broadcast transmission at said client computer system from said first or second broadcast origination point, said digital broadcast including said requested content (*col. 7, lines 52-61*).

Regarding **claim 56**, in addition to features recited in base claim 55 (see rationales discussed above), Rajakarunanayake further teaches wherein: said digital broadcast transmission includes a beacon signal that provides transmission characteristics of said digital broadcast origination points (*col. 6, line 20 and thereafter, Rajakarunanayake discloses the instant invention is implemented using DirectPC equipment supplied by Hughes Satellite System. Thus, the claimed limitation is inherent for DirectPC system, there is a beacon signal for tracking as well as doing the maintenance to the satellite receiver at a user premise*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rajakarunanayake in view of Pennywitt et al (USP 6,434,562) (hereinafter "Pennywitt").

Regarding **claim 35**, in addition to features recited in base claim 24 (see rationales discussed above), Rajakarunanayake further discloses wherein said digital broadcast transmission comprises a digital television signal in compliance with an Advanced Television Standards Committee (ATSC) format (*signals delivered via satellite discussed at col. 2, line 33 and thereafter*). Rajakarunanayake fails to further disclose "wherein the requested content is inserted in place of null packets in said ATSC formatted digital television signal". However, such limitation lacks thereof from Rajakarunanayake reference is well known and disclosed by Pennywitt.

In an analogous art, Pennywitt discloses a computer system and method for providing digital video to end user (see abstract), comprising, among other things, a limitation of substituting incoming null packets with packets associated with the new program (Fig. 34; element 1550 and col. 30, lines 54-57) to remedy the reduction of available bandwidth of the satellite delivery system ('562, col. 2, lines 11-46).

Thus, it would have been obvious to those skilled in the art at the time of the invention was made, having readily available the references of Rajakarunanayake and

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Pennywitt, to implement Pennywitt's teaching into Rajakarunanayake to arrive the claimed invention with a motivation to overcome the reduction of available bandwidth of the satellite delivery system ('562, col. 2, lines 11-46).

Allowable Subject Matter

6. Claims 50-54 are allowed.
7. Claims 28-34 and 42-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed invention of base claims 50 and further limit with a novel, unobvious limitation of "transmitting a second digital broadcast transmission from the selected broadcast origination point to one or more of the client computer, the second digital broadcast transmission including a beacon signal that provides transmission information about one or more of the plurality of broadcast origination points to permit a client computer system to select a broadcast origination point, whereby the transmission loads are dynamically and automatically equalized among said plurality of broadcast origination points", structurally and functionally interconnected with other limitations in a manner as recited in claims 50-54. The above limitation also has industrial utility.

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The prior art of record, considered individually or in combination, also fails to show or suggest the claimed invention of base claims 24 and 40 and further limit with novel limitations as recited in the dependent claims 28-34 and 42-49.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Welles, II et al (USP 6,532,495).

Thomasson et al (USP 6,205,473).

Packer (USP 6,046,980).

Dureau et al (USP 6,118,472).


Kunkel et al (USP 5,961,603).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is (571) 272-3164. The examiner can normally be reached on 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frank Duong
Examiner
Art Unit 2666

October 24, 2004